UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,227	10/23/2003	Rajeev B. Rajan	MSFT-2850/306820.01	8383

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EXAMINER
EHICHIOYA, FRED I

ART UNIT	PAPER NUMBER
2162	

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/692,227	RAJAN ET AL.
	Examiner	Art Unit	
	Fred I. Ehichioya	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _03 November 2006_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1 – 9, and 25 – 39_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1 – 9, and 25 – 39_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to communications filed November 3, 2006.

2.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

November 3, 2006 has been entered.

3.   Claims 1 – 9, and 25 – 39 are pending in this Office Action.

Response to Arguments/Remarks

4.   Applicant's arguments with respect to claims 1 – 9, and 25 – 39 have been

considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 25 are rejected under 35 U.S.C 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 25, they recite the limitation of *".....without altering the assigned data type of said at least one designated field"* and "determining from the designation of said at least one field that that the data of that field is to be stored as a file outside of the data base store *irrespective* of the assigned data type of that field". These claim limitations are negative limitations that rendered the claims indefinite because it is an attempt to claim the invention by excluding what the inventors did not invent rather than distinctly and particularly pointing out what they did invent. *In re Schechter, 205F.2d 185,98 USPQ 144 (CCPA) 1953)*. Also, this claimed limitation defines the invention in terms of what it was not, rather than pointing out the invention; therefore, renders claims 1 and 25 indefinite.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7.   Claims 1 – 7, 9, 25 –31, and 33 - 39 rejected under 35 U.S.C. 102(b) as being

anticipated by Anderson et al., "Anderson" (US Patent No. 5,799,310).

Regarding claims 1 and 25, Anderson teaches in a computer system in which an

object that is an instance of a user defined type can be persisted in a database store

(Fig. 4 and column 6, lines 39 – 50: Anderson discloses UDT "user defined type" that

are stored in table 412), wherein a definition of the user defined type comprises a

plurality of fields (Fig. 4 shows tables 312, 412 and 418 that have rows and columns

which represents the fields of the user defined types; see also column 9, lines 51 - 54),

each of said plurality of fields being assigned any one of a plurality of data types

supported by the database store (column 10, lines 49 – 51: TIF, GIF, BMP for image

and WAVE, MIDI for audio are some of the data types supported by the data store), at

least one of said fields of the definition being designated as containing data that is to be

stored as a file outside of the database store separately from the data of the other of

said plurality of fields of the type definition without altering the assigned data type of

said at least one designated field (Fig. 4, column 7, lines 25 – 30 and column 9, Fig.7D

shows a reference 720 in the table that points to a file that is stored externally), a

method comprising:

receiving a request to store an object that is an instance of the user-defined type

(column 7, lines 23 – 28: The user has the option to store the object either locally or

externally).

determining from the designation of said at least one field that that the data of

that field is to be stored as a file outside of the data base store irrespective of the

assigned data type of that field (column 8, lines 30 – 36: Anderson discloses that data

for all the data types "irrespective" can coexist in a table and one of the type may be

stored externally)

storing the data in said at least one designated field of said plurality of fields of

the instance of the user defined type as a file outside of the database store (column 9,

lines 51 – 60: Fig. 7(d) shows a file stored externally); and

storing the data in each of the other fields of said plurality of fields of the instance

of the user defined type within the database store (column 8, lines 30 – 34: Anderson

discloses that data for all the data types "irrespective" can coexist in a table, some

stored locally and one of the type designated to be stored externally).

Regarding claims 2 and 26, Anderson teaches providing a link between the data

of the fields of the object that are stored within the database store and the data of the

field that is stored as a file outside of the database store (column 6, lines 35 – 37: Fig.3

shows a link to a file stored externally).

Regarding claims 3 and 27, Anderson teaches wherein the data of the fields of the object that are stored within the database store are stored as fragments within a column of a table of the database, the column having been designated as the user defined type (column 1, lines 60 – 64: Examiner interprets "portions of video clip returned to the database" as "fragments").

Regarding claims 4 and 28, Anderson teaches wherein a unique identifier associated with the object is stored in another column of the table in a same row as the data of the fields of the object (column 25, lines 19 - 24).

Regarding claims 5 and 29, Anderson teaches creating a unique directory within a file system of the computer for storing files containing the data of said at least one designated field of every instance of the user defined type (column 26, lines 22 – 25: Anderson discloses a directory path for the designated field); and

storing the data of said at least one designated field of every instance of the user defined type as a respective file within the created directory (column 26, lines 17 – 22: Anderson discloses storing binary large object either locally or externally).

Regarding claims 6 and 30, Anderson teaches providing access by an application to the file in which the data of said at least one field is stored outside the database store via the file system of the computer (column 25, lines 34 – 43: Anderson discloses that regardless of the storage location, the object may be accessed).

Regarding claims 7 and 31, Anderson teaches wherein said step of providing

access by an application to the fire in which the data of said at least one field is stored

comprises:

receiving a call from the application, via an application programming interface to

the file system of the computer, to open the file, wherein the call identifies the field of

the object by its identity within the database store (column 13, lines 64 - 67);

determining from the identity of the field of the object within the database store a

path within the file system of the computer to the file containing the data of that field of

the object (column 29, line 47 – column 30, line 5); and

executing the call to open the file using the determined path (column 30, lines 1 -

5).

Regarding claims 9 and 33, Anderson teaches wherein the type of the object is

defined as a class in managed code (column 4, lines 2 - 5).

Regarding claims 34 and 37, Anderson teaches wherein instances of a plurality

of different user defined types can be persisted in the database store (Fig. 4 and column

6, lines 39 – 50: Anderson discloses UDT "user defined type" that are stored in table

412), each of said plurality of user defined types having at least one field designated as

containing data that is to be stored as a file outside of the database store separately

from the data of other fields of the user defined type (Fig. 4, column 7, lines 25 – 30 and

column 9, Fig.7D shows a reference 720 in the table that points to a file that is stored

externally), and wherein the method further comprises:

for each user defined type, creating a different unique directory within the file

system for storing files containing the data of said at least one designated field of every

instance of that user defined type (column 26, lines 22 – 25: Anderson discloses a

directory path for the designated field that is either stored locally or externally)..

Regarding claims 35 and 38, Anderson teaches performing a database

operation on the data of said at least one designated field of the instance of the user-

defined type, wherein the database operation is performed on the data of said at least

one designated field as if it were stored within the database store (column 3, lines 13 –

22).

Regarding claims 36 and 39, Anderson teaches wherein the database

operation may comprise one of an INSERT, UPDATE or DELETE operation (column 12,

lines 45 – 47).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art
> are such that the subject matter as a whole would have been obvious at the time the invention was made to
> a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

9.   Claims 8 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Anderson in view of U.S. Patent 6,070,174 issued to Robert Phillip Starek et al

(hereinafter "Starek").

Regarding claims 8 and 32, Anderson does not explicitly teach NTFS as claimed.

Starek teaches wherein the file system of the computer comprises a Microsoft NTFS file system and wherein the application programming interface to the file system comprises the Win32 application programming interface (see column 9, lines 1 – 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine teaching of Starek with the teaching of Anderson to provide system with a method and apparatus for enhancement of file system calls to a file structure of an operating system. The motivation is that the interception of file system calls such that supplemental file management processes can be performed in a manner transparent not only to the user but also to the operating system.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Fred I. Ehichioya whose telephone number is 571-

272-4034. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John E. Breene can be reached on 571-272-4107. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Fred I. Ehichioya
Patent Examiner
Art Unit 2162

November 22, 2006

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